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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,788	03/03/2004	Yui-Shin Fran	0941-0929P	4364

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EXAMINER	
ROY, SIKHA	

ART UNIT	PAPER NUMBER
2879	

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/790,788	FRAN ET AL.	
	Examiner	Art Unit	
	Sikha Roy	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The Amendment, filed on June 13, 2006 has been entered and acknowledged by the Examiner. The objection to specification has been withdrawn.

Claims 1-10 are pending in the instant application.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding claim 1 the limitation reciting 'electrodes **elongate freely in the front glass sleeves** due to heat' has not been described in the specification. The specification discloses (page 4 lines 13-23) when the electrodes elongate due to heating the rupture of the glass plates and sidewalls is prevented by the spacing in the **rear** glass sleeves. There is no mention of elongation of electrodes in the front glass sleeves.

Claims 2-10 are rejected because of their dependency status from claim 1.

Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for elongation of electrodes in the rear glass sleeves, does not reasonably provide enablement for **elongating freely in the front glass sleeves**. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make use of the invention commensurate in scope with these claims. The specification discloses (page 4 lines 13-23) when the electrodes elongate due to heating the rupture of the glass plates and sidewalls is prevented by the spacing in the **rear** glass sleeves. Because the end surface of the electrode and the rear glass sleeve are spaced apart, the elongation of electrodes in the rear glass sleeves can take place and the rupture of the glass sidewalls will be avoided (page 3 lines 3-8). Furthermore the Examiner notes that this limitation of electrodes elongating freely in the front glass sleeves due to heat implies that the electrodes in the front glass sleeves can move which would result in leakage of discharge gas from the envelope and there would be no hermetic sealing of the flat lamp.

For continuing examination the Examiner notes that the limitation has been considered to be 'electrodes elongate freely in the rear glass sleeves due to heat'.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,4 - 9 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 09245726 A to Yoshioka et al.

Regarding claim 1 Yoshioka discloses (Figs. 1-3, paragraphs [0003], [004], [0008] – [0012]) a flat lamp comprising an upper glass plate 1, a bottom glass plate 2 , sidewall to form a closed space with the upper glass plate and the bottom glass plate, at least two electrodes 7(along with 7a,7b) and 8 (along with 8a,8b) parallel extending into the closed space, at least two rear sleeves and front glass sleeves 10 positioned in the closed space, secured on the bottom glass plate 2 and supporting the electrodes. Yoshioka discloses front glass sleeves 10 through which electrodes 7a, 8a extend outward from the closed space. Yoshioka further discloses (paragraph [0013], Fig. 3) the end surface of the electrodes 7b and 8b in the rear glass sleeve are spaced apart from the frame edge part of the frame so that there is a distance from the junction edge to the electrode ends and the electrodes can elongate freely in the space due to heat.

Regarding claims 4 and 5 Yoshioka discloses (Figs. 2,3 [0012]) the rear glass sleeve 10 (on the rear side) and the front glass sleeve 10 (on the front side) are secured on the bottom glass plate 2 between the sidewalls and the electrodes are held in.

Regarding claims 6, 7 and 9 Yoshioka discloses ([0012]) heat joining of the upper glass plate 1 and bottom glass plate 2 is carried out by the glass sleeves made of glass frit and hence it is inherent that the glass sleeves are melted to seal the closed space.

Regarding claim 8 Yoshioka discloses the front glass sleeve is bonded to the bottom glass plate between the sidewalls and the closed space is formed. The Examiner notes that the claim limitation that "closed space is sealed by means of glass gel " is drawn to a process of manufacturing which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (see MPEP 2113). Therefore, it is the position of the examiner that it would have been obvious to one of ordinary skill in the art that the flat lamp disclosed by Yoshioka is at least a fully functional equivalent to the Applicant's claimed invention as evidenced by the suggestion of all of the Applicant's claimed structural limitations.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09245726 A to Yoshioka et al.

Regarding claim 2 Yoshioka discloses that there is a gap between the end of the electrodes and the rear edge of the frame of the envelope but does not exemplify the end surface of the electrode to the rear glass sleeve are spaced apart. It would have been obvious to one of ordinary skill in the art at the time of invention to include the spacing between the end of the rear glass sleeve and the end surface of the electrode of Yoshioka for providing easier manufacturing.

Regarding claim 3 Yoshioka does not explicitly disclose the elongation of the electrode due to heating being less than the sum of the linear heating expansion of the rear glass sleeve and the spacing.

It is well known in the art that when current flows, the electrodes get heated and consequently there is an expansion/elongation of the electrodes. Yoshioka discloses a predetermined spacing is provided between the glass sleeve edge and the end of the electrode so as to prevent contact between the two and any thermal stress and deformation of the electrode that can be generated as a result. Therefore it would have been obvious to one of ordinary skill in the art a the time of invention to specify the expansion of the electrode due to heating is less than the sum of the thermal expansion of the rear glass sleeve and the spacing so that there exists a space between the end of the electrode and the edge of the glass sleeve during the operation of the lamp and consequent heating, for preventing contact between the two and any thermal stress and deformation of the electrode that can be generated as a result.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09245726 A to Yoshioka et al. and further in view of U.S. Patent 5,520,855 to Ito et al.

Claim 10 differs from Yoshioka in that Yoshioka does not exemplify the electrodes inserted and secured through the front glass sleeves by glass gel.

Ito in pertinent art discloses (abstract) glass gel is excellent in water resistance, durability and has high strength.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use glass gel as taught by Ito for securing the electrodes through the glass sleeve of Yoshioka for providing excellent water resistance, durability and high strength of the sealing material and thus enhancing the operating life of the lamp.

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP 07335178 to Nobe et al. discloses a flat panel discharge lamp having a stable light emitting characteristic by securing the base ends of the main electrodes into the vessel.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sikha Roy

Sikha Roy
Patent Examiner
Art Unit 2879